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ABSTRACT

Following an overview of the need for evaluation training, the Analysis of Evaluation Training Materials Project is described and the coverage, methodology, and usability of materials available for training educational personnel in evaluation skills are considered. Problem areas in evaluation, identified by the National Institute of Education (NIE), are being addressed through the preparation of a two-volume guide, the "Guide to Evaluation Training Materials." Volume I is a compilation of materials developed with federal funds, and volume 2 includes materials from a wide variety of sources which were selected, based on a conceptual map characterizing areas of evaluation and their interrelationships. The two-volume guide is considered useful for: (1) providing comparative data on evaluation and training materials; (2) indicating the variety of producers of materials, such as national, state, or local education agencies; professional associations; private research and development agencies, institutes, or centers; academic institutions; and consultants; (3) exemplifying which aspects of evaluation are being covered; (4) indicating the audience for these materials; and (5) analyzing methods appropriate for teaching evaluation. A list of products reviewed in the two-volume guide is appended, as well as the review formats and examples. (MH)

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Evaluation Training Materials--the State of the Art

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"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
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Paper presented at the 1979 meeting of the
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The material presented in this paper resulted from a two-phase project conducted by Far West Laboratory under the sponsorship of the Measurement and Methodology Division, Basic Skills Group, at NIE, in which almost a hundred evaluation training products were identified, analyzed, and described in a user's guide. This collection of comparative information about such products provided a unique data-base from which project staff were able to draw certain conclusions about the state of the art of evaluation curriculum development.

Following an overview of the need for evaluation training, this paper will describe the Analysis of Evaluation Training Materials project, and then pass to consideration of the coverage, methodology, and usability of materials now available for training educational personnel in evaluation skills.

The Need for Evaluation Training

During the past two decades Evaluation has been recognized as having the potential to make a major contribution to the improvement of Education. With this recognition has come a corresponding demand that it be used to assess the effectiveness of educational products and programs and to monitor the outcomes of student participation. This concern for accountability comes from government and community representatives at all levels, and educators at all levels are being called upon to comply.

As evaluation has grown in importance, it has also emerged as a professional discipline, as indicated by the increase in graduate programs in Evaluation and the numbers of new conferences and journals for which it provides a focus. So much work is now being done on Evaluation theory that there are almost as many evaluation models as there are evaluators.

However in many educational situations, engaging a full-time professional evaluator would not be cost-effective. As a result, anyone from parent to principal may be required to participate in evaluation activities. Most of

these people would find it difficult to go back to school for training. If they make valid evaluational judgments, they must somehow acquire the skills to generate, analyze, interpret, and apply data and make appropriate use of their findings.

The Measurement and Methodology Division at NIE defines the following problems in evaluation:*

1. Federally mandated evaluation requirements are not having the desired results. In spite of evaluations carried out, there is little evidence that feedback from evaluation is having a substantial impact on policy decisions.

2. Federal (Congressional) expectations for conclusions regarding the effectiveness of educational interventions and for the validation (ascertainment of best) of educational products still exist, regardless of the state of the art in assessment measurement and methodology.

3. State and local needs for accountability of expenditures, pupil and program progress, and outcomes far exceed the number of personnel capable of conducting evaluations and the availability of evaluation training materials to train additional personnel.

4. Inadequacy of the state of the art in assessment and measurement, and demands by interest groups for improved assessment techniques and procedures to insure unbiased evaluation in their thrust towards educational opportunity.

5. Inadequacy of the state of the art in methodology, as characterized by an inability to draw causal inference in non-experimental research (and evaluation), technical problems in aggregating data in large scale research and evaluation, and in solving problems in conducting multiple-program, multiple-project evaluations.

6. The questionable extent to which obtained evaluation data is used by decision makers in a variety of contexts because of human, social, political, and organizational factors.

7. The lack of clarity, understanding, and empirical evidence regarding what research and evaluation can and cannot do, and confusion with regard to their differences.

8. Inadequacy of the state of the art in evaluation characterized by the proliferation of evaluation models and approaches (28 different models),

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*D.A. Antonoplos, "A Perspective on Evaluation," Consumer's Guide to Evaluation Training Materials, Vol. I, Princeton, N.J.: Educational Testing Service, 1978 (ED 143 702).

each with its own following, and no empirical evidence to determine the extent to which the models are theoretically and operationally different, or for what goals and purposes they are best suited.

The Measurement and Methodology Division at NIE is attempting to address these problems by contributing to the increase of knowledge about evaluation theory, methodology, and practice, and by supporting the development of materials, techniques, and products for the training of administrators and teachers to conduct evaluations at the state and local educational levels.

With the support of NIE and other organizations and agencies a number of training products have been developed to help general or specific audiences of users acquire the background or skills needed to respond to the demand for evaluation. Some of these works have been widely disseminated, others are relatively obscure, and they have treated many different aspects of evaluation from a variety of points of view.

In order to choose wisely, educators seeking evaluation training must know what materials are available, their purposes and the kind of commitment using them will involve, and something about their history.

The Analysis of Evaluation Training Materials Project

In 1976, the National Institute of Education funded Far West Laboratory to begin work on a project that would help meet the need of educational practitioners for a convenient, comprehensive, and accurate source of information about evaluation training materials. A second goal of the project was to provide developers and funding agencies with information on what areas of evaluation training had been addressed, in what areas materials were needed, and what the most effective approaches to evaluation training development might be.

In order to accomplish these goals, the project searched out and collected evaluation training materials, developed a format for their analysis, reviewed

them, and compiled the reviews into a user's guide with indices and instructions for use. The Guide was prepared in two volumes, the first of which covered materials developed by R&D agencies who were members of CEDAR, and the second covering materials developed by others, including universities; federal, state, and intermediate educational agencies; commercial publishers; private R&D agencies, and individuals.

Selection and Materials

Before discussing the analytical framework developed to review these products, we should briefly indicate the criteria used for selection of materials to be featured in the Guides. For both volumes the materials had to address some aspect of application and evaluation, and be intended to train the user.

The first volume focused specifically on materials developed with federal funding, particularly from the Office of Education or the National Institute for Education, because the funding agency needed first to know what its money had accomplished. In the absence of any bibliography of such products, the project approached members of CEDaR who are primarily funded by federal agencies for titles of evaluation training materials they had produced.

Since the second volume was inteded to identify products that the first one had not been able to include, the search strategy used was more extensive. The procedures used ranged from doing a computer search of ERIC, to review of publishers' trade lists, bibliographies, libraries, and Evaluation and Education journals and newsletters. In addition, descriptions of the project and requests for suggestions on materials to consider were sent to the AERA Division H Newsletter, Evaluation News, organizations such as Phi Delta Kappa, and a number of professional evaluators, and distributed at evaluation conferences. Phi Delta Kappa in particular responded nobly by loaning the project

its collection of evaluation materials and bibliographies.

The result of this search was the identification of 38 products for the first volume (36 in the revised version published in 1978 by ETS, or 22 if all components of a program are counted together, as they are in Vol. II), and 61 products for Volume II. A list of these products appears in Appendix A.

Development of A Conceptual Framework for Product Review

A more difficult task was the development of a conceptual framework for Educational Evaluation which could be used to guide selection of materials from those submitted by appropriate organizations and the development of an analytical format for reviewing them.

One of the major activities during the first part of the project was the development of a "conceptual map" which characterized areas of evaluation and their interrelationships. Based on the literature of evaluation philosophies, models and methods; the evaluation experience of project staff, and analyses of actual training materials, two major dimensions were identified: the evaluation process dimension (figure 1) and the educational domain within which evaluations take place (figure 2). The map permitted analysis and classification of materials from a systems perspective and facilitated understanding of the relationships among existing concepts of evaluation.*

The conceptual map was then used to guide development of categories and a format for review of the training materials which had been collected.

Using this map, it was found that any evaluation training product could be classified according to the aspects of evaluation it presented and the

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*These domains were discussed in more detail in A Final Report on the Analysis and Reporting of Evaluation Training Materials, by B. Banathy, L. Blackwell, S. Mills, D. Studebaker. San Francisco: Far West Laboratory, 1976. (available in ERIC, #ED 150 166)

aspect of education the evaluation skills it was teaching addressed. One of the uses of the map was to enable the project to create an index of materials included in each volume which serves the double purpose of guiding users to appropriate materials and providing an overview of what kinds of materials exist. (These indices appear in Appendix B to the paper.)

A more important use of the map was as a guide to the development of categories for reviewing the training materials which the project collected. As the project progressed, the theoretical structure of the map, the actual nature of the materials available, and user's information needs, worked interactively to modify the categories and their definitions, until the review format used in the first volume was finished.

Since the materials included in the first volume were all produced by a total of seven R&D agencies, products were grouped under the agencies' names. The categories of information used to describe them were: product title (and program, if any, of which it was a part); intended users, type of evaluation addressed; approach to evaluation; main emphasis of product; goals and objectives; main activities; provisions for use, including format, personnel, product components, resources, time span, and conditions of use; adaptability; related products; cost; availability; history and evaluation; and a comment by the reviewer. A fuller explanation of these categories and an example of an actual review from Volume I is presented in Appendix C.

The review categories used in Volume II, although still based on the conceptual map, required some modification. The most perplexing problem that arose in this phase of the project was that of defining "training materials." This question had not occurred during the preparation of Volume I, because the developers of the products covered were required to be members of a specific group. These developers appeared to share certain assumptions about the

FIGURE I

EVALUATION PROCESS DIMENSION

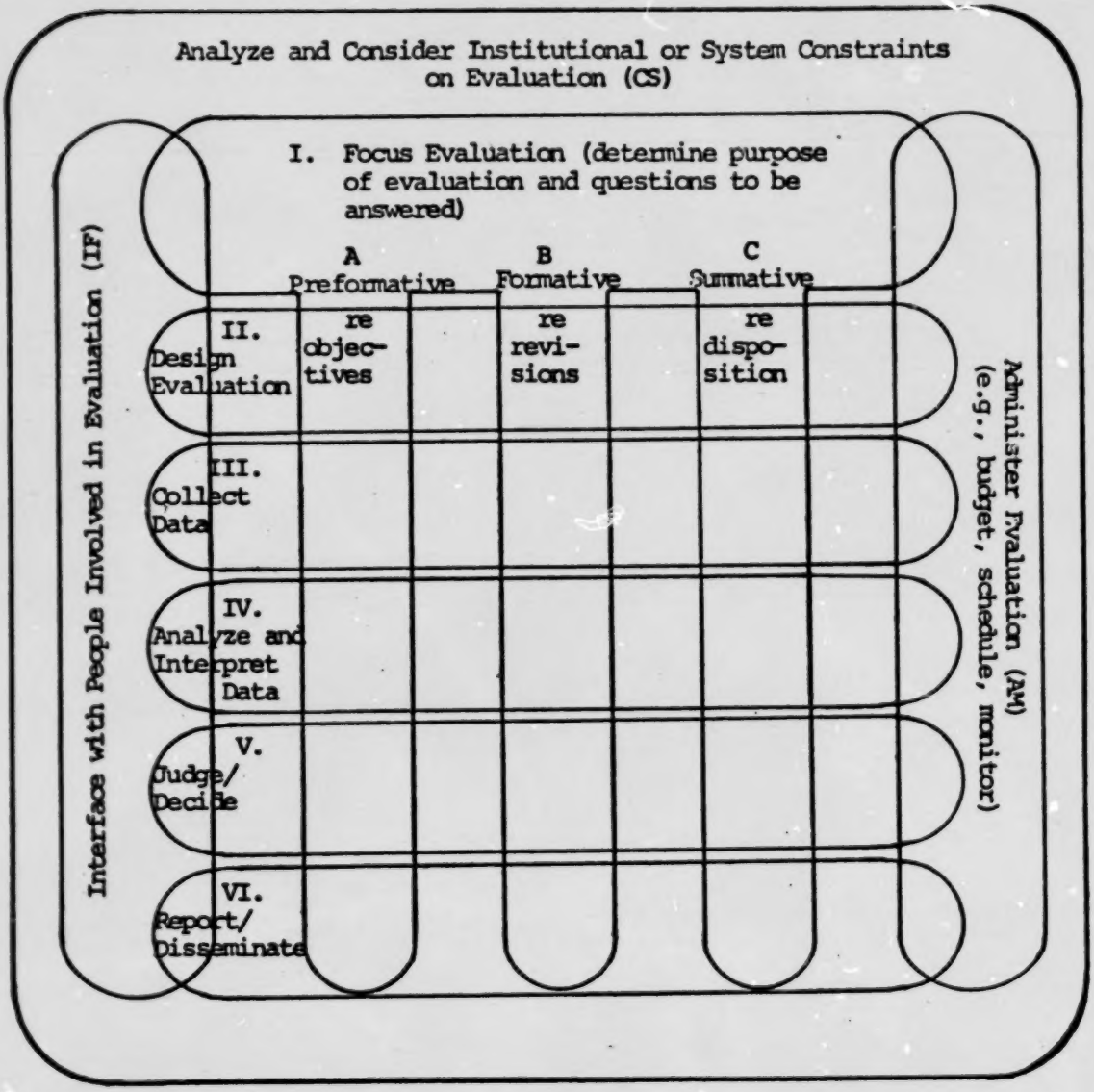
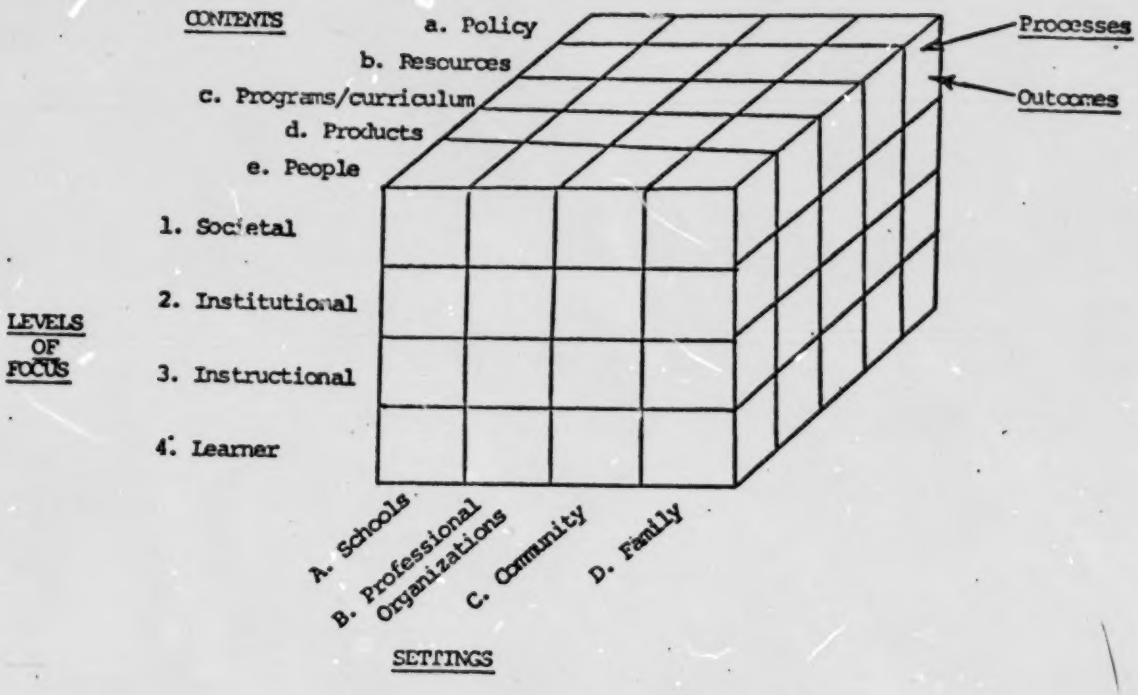

Analyze and Consider Institutional or System Constraints on Evaluation (CS)
Interface with People Involved in Evaluation (IF)
Administer Evaluation (AM) (e.g., budget, schedule, monitor)
I. Focus Evaluation (determine purpose of evaluation and questions to be answered)
A Preformative
B Formative
C Summative
II. Design Evaluation
re objectives
re revisions
re disposition
III. Collect Data
IV. Analyze and Interpret Data
V. Judge/ Decide
VI. Report/ Disseminate

FIGURE 2

DOMAIN OF EDUCATION DIMENSION



characteristics a training product should have, and the procedure involved in developing it. According to these assumptions, training materials are characterized by:

- a clear statement of the learning outcomes or competencies the user is expected to acquire;
- explicit instructions for dealing with the product's instructional content;
- case histories or other realistic illustrations/examples (simulated or actual);
- practice or application exercises and feedback;
- some way of testing the user's attainment of the learning outcomes or competencies addressed; and
- some indication that the product was (1) tried out with users, (2) reviewed by experts, and (3) revised based on testing and review.

The products recommended for inclusion in the second volume were more diverse that the first group from a number of points of view. Since authorship was not restricted, they came from a wide variety of sources: national education agencies or associations, state educational agencies, local educational agencies at the district or building level, university departments of education, psychology, or others; university-based educational centers, institutes, or projects, private R&D agencies, and professional evaluators working independently. The distribution of products among these groups is displayed in Figure 3.

In addition to products possessing the characteristics listed on the previous page, the materials collected fell into several other general categories, including:

- products which are instructionally-oriented but do not have all the characteristics listed on page 8;
- workshop materials without coordinator's or facilitator's instructions;
- procedural guides or "how-to" books explaining how to conduct an evaluation;
- checklists of instrument collections to be used in evaluating; and
- works describing evaluation theory or practice.

The amount of evaluation which these products had undergone also varied considerably. Some products went through several cycles of testing and revision, while others were revised on the basis of review by consultants or associates or were simply based on the author's experience.

In order to cover this broader group of materials and to make the Guide more usable, the review categories and format were revised for use in Volume II. The categories featured in this version included: product title; author(s) and institution or location; intended users; type of evaluation addressed; approach to evaluation; format of the materials; product components; content emphasis; product purpose or goals; content organization or user activities;

FIGURE 3

DEVELOPERS AND DISTRIBUTORS OF EVALUATION TRAINING MATERIALS

	Number of Developers	Number of Products (total=83)
National Education Agencies or Associations	4	3
State Educational Agencies	7	8
Local Educational Agencies	7	9
Private R&D Agencies	6	11
Regional R&D Laboratories	6	19
University Based R&D Centers, Institutes, or Projects	9	12
Employed at Universities Individuals or Teams	10	16
Working Independently Individuals or Teams	3	6
	Number of Distributors	**Number of Products**
Educational Divisions of Commercial Publishers	6	10
Educational Publishers	17	22
National Educational Agencies or Associations	5	7
Developing Agency, Project, or Individual	26	38
ERIC	1	5
USGPO	1	3

requirements (for use), including personnel, resources, length, and conditions of use; adaptability, related products; cost; availability; history and evaluation; and a comment by the reviewer. A fuller explanation of these categories and an example of a product review from the second volume appears in Appendix C.

To ensure accuracy, product reviews were sent to the developers for correction and comment before being placed in the Guide. Instead of grouping materials in the Guide according to developer, they were arranged according to major content focus. The groupings which were found to be most convenient for arranging the materials in Volume II were: General Training in Evaluation; Evaluation of Specific Subject Areas; Evaluation of Curriculum and Instruction; Needs Assessment and Goal Setting; and Validation of Evaluation Instrument Development.

This change was reflected in the format of the Index. Since the horizontal dimension was divided according to Product Focus, the vertical line represented Product Appropriateness, defined according to: Intended Users, Setting, and Manner of Use.

Dissemination of the Guide

The first volume of the Guide to Evaluation Training Materials had a limited distribution between its completion in 1976 and 1978, when it was revised and updated as a part of the second phase of the project. At that time the Evaluation Improvement Program (EIP) of the Educational Testing Service at Princeton, New Jersey, selected the Guide for dissemination as part of its program.* According to Dr. Wesley Walton, Director of the EIP program, five hundred copies have been sold and orders keep coming in.

*Volume I of the Guide is available from ETS for $8.00. It is also in the ERIC system, #ED 143 702.

The second volume of the Guide was completed in 1978, and is now being produced and distributed by National Teaching Systems in Seaside, California.* Its director, Axel Duwe, reports that without any major publicity effort, several hundred copies have been sold.

These figures, and the expressions of interest that the project's search for new materials inspired, indicate that the need which the project was intended to meet is indeed still evident. The developers are presently exploring possibilities for updating the Guide and perhaps combining volumes I and II.

The Guide as a source of information on Evaluation Training

In addition to providing the prospective user with information on the various training materials available to him or her, the two volumes of the Guide constitute a unique collection of comparative data on such materials. Analysis of this information enables one to answer a number of questions about the source, coverage, and methods being used in the development of evaluation training today.

Who is developing Evaluation training materials?

As indicated in figure 3, producers of materials to provide evaluation training fall into a number of categories. National Educational agencies or associations include organizations like AERA or Phi Delta Kappa which from time to time will sponsor development of materials in their areas of interest. These organizations also sometimes distribute products developed by other organizations.

State Educational Agencies represented include Department of Education, Offices of Public Instruction or special projects from places as diverse as

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*National Teaching Systems, 1137 Broadway, Seaside, CA 93955, $8.00.

New York, California, Connecticut, Montana, Washington, Florida and Alabama.

Local educational agencies on the city or country district level include Offices of Research and Evaluation and a variety of special projects. Three of these districts are in California, two in Texas, and one each in New York and Arizona.

Private research and development agencies developing evaluation training come in all sizes, from American Institutes for Research to INSGROUP in San Diego. The public R&D laboratories represented are mostly the survivors of the group of regional educational R&D laboratories established in 1966. In this group, Far West Laboratory, Research for Better Schools, Inc., and Northwest Regional Educational Laboratory have produced the greatest number of evaluation training materials.

Even more numerous are the Centers, Institutes, and projects of various kinds attached to or based in University settings. One of the most productive of these is the Center for the Study of Evaluation at U.C.L.A. Other examples include the Evaluation in Cancer Education project at the College of Medicine of the University of Iowa, the Instructional Learning Module project at the University of Utah's R&D Laboratory, and the Evaluation Training Consortium based at the University of Virginia.

A large number of materials are developed by individuals or teams employed at Universities or working as independent consultants whose materials are distributed by publishers. The single author with the longest list of evaluation training materials to his credit is James Popham of UCLA.

Figure 3 also shows that the greatest number of evaluation training products are distributed by the individual or agency that developed them, with educational publishers of varying sizes running a close second. Some materials, especially those suitable for use in graduate classes, are published by the

educational divisions of commercial publishing houses, and national educational agencies, ERIC, and even the U.S. Government Printing Office also make such materials available.

What aspects of evaluation are covered by training materials?

A breakdown of numbers of products devoted wholly or partially to training in various aspects of evaluation is presented in figure 4. This analysis shows a much broader distribution of topics in volume II than in volume I. The materials developed by the R&D Laboratories and Centers tend to focus on needs assessment, formative evaluation and on the planning and management of evaluations. These produced by the more general group, on the other hand, showed a much stronger representation in the areas of setting goals and objectives and the development of instruments for data collection and analysis or the topic of measurement in general. This group was also more concerned with evaluation of materials, facilities, and student performance, in general showing a greater concern with applications of evaluation to provide specific information rather than with its role in promoting organizational change. The figures are also affected by the fact that in selecting products for review the project tried to exclude those that were concerned primarily with measurement or test development except where these skills were integrated with other evaluation skills, and specifically avoided products addressing personnel assessment.

The project was also interested in finding out whether the interest of evaluation theoreticians in developing evaluation models would be reflected by the training materials being produced by their students and others. This did not prove to be significantly true. Only seven of the products reviewed in Volume II were consciously based on any particular evaluation model--four on Malcolm Provus' Discrepancy Evaluation Model, and three using the CIPP model

FIGURE 4

NUMBERS OF PRODUCTS SPECIFICALLY ADDRESSING
VARIOUS ASPECTS OF EVALUATION WHOLLY OR IN PART

ASPECT OR TYPE OF EVALUATION	NUMBER	
	(total 36) Volume I	(total 61) Volume II
Basic Concepts in Evaluation	4	9
Evaluation Planning and Design	13	18
Evaluation Management/Monitoring	8	6
Needs Assessment	11	14
Goal Setting	1	11
Starting Objectives	-	11
Formative Evaluation	18	4
Summative Evaluation	8	5
Implementation Evaluation	-	5
Tests, Measurement, Instrumentation	8	23
Data Collection	5	19
Data Analysis	4	17
Interpretation and Reporting	5	16
Validation	-	2
Evaluation of Student or Teacher Performance	-	8
The Evaluator's Role	5	3
School Facilities	-	4
Instructional Materials	4	4

developed by Daniel Stufflebeam.

In five products, the purpose of evaluation was described as being to establish worth, in nine, it was defined as the attempt to find out whether a program was achieving its goals, and in three, to solve problems and promote educational change. By far the greatest number of developers indicated that the purpose of evaluation activities was to provide data for sound decision-making. This was true for sixteen of the products in the second volume and even more so (15 out of a total of 22 products reviewed) in Volume I. The approach to evaluation stated or implied by the content of the remaining products did not suggest any particular definition or model.

What is the audience for evaluation training materials?

In the absence of any actual studies of marketing patterns for these materials, the best indication of what the audience for this kind of training is comes from the developers' own definitions of their target groups. An analysis of the groups which writers of evaluation training materials expect to benefit from them is presented in Figure 5. It shows that the largest single group of intended users are school administrators at various levels, with teachers coming in second. Another significant group are prople who function primarily as evaluator., project or program managers, and media or curriculum specialists. Groups who are addressed in some materials include trainers of evaluators, community members and parents, students, and change specialists. It should be noted that most products are intended for use by more than one of these groups at once.

The settings from which these people are expected to come are similarly distributed. Twice as many products address the needs of elementary and secondary schools as any other settings. State and local educational agency settings, special programs or projects, colleges/universities, and adult

education, are about equal to each other in popularity, with R&D agencies slightly behind. The disciplines which are most likely to be perceived as needing special training in evaluation are career/vocational education, and special education.

What methods are appropriate for teaching evaluation?

In order to answer this question, it is necessary to consider the discipline of instructional development as well as that of evaluation. It is possible at this point to investigate the approaches to training development that have been found feasible but it is not possible to say with any confidence what approaches to training are most effective, since there does not appear to have been any research on the effects of different forms of mediation in this area. However the criteria which govern design and development of materials for training evaluators should surely be no less rigorous than those applied when developing curriculum in other disciplines.

At Far West Laboratory and in a number of other educational R&D agencies, educational products pass through a series of stages on their way from design to dissemination. Although most evaluation training materials fall into what publishers refer to as a "thin-market" category, and obviously could not justify the kind of large-scale testing that would be required by a new math program, for use in public school systems, the basic developmental sequence is the same.

This sequence can be represented by a flow diagram like that in figure 7. The diagram clearly shows the relationship between development and evaluation activities. For a fuller description of the process, see Paul Hood's outline of "Evaluation Steps for a Major Laboratory Product" reproduced as Appendix D.

In applying this approach to the development of evaluation training materials, it becomes clear that their design should be based on a careful study of a given user group's need for training, their characteristics as

FIGURE 5

USERS AND SETTINGS FOR EVALUATION TRAINING

Users	Products Adressing (83)	Settings	Products Addressing (83)
Administrators	67	Secondary Schools	70
Teachers	45	Elementary Schools	68
Evaluators	29	LEAs and SEAs	37
Project/Program Managers	24	Special Programs	29
Media/Curriculum Specialists	22	Higher Education	25
Trainers	15	Adult Education	23
Parents/Community	10	R&D Agencies	15
Change Specialists	3		
Students	2		

FIGURE 6

TRAINING FORMATS

Type of Training	Volume I (22)	Volume II (61)
Self-instructional	7	22
Procedural Manual or Guide	3	21
Workshop	12	18
Course	1	12

learners, and the constraints imposed by the setting within which training would take place. At each stage of development thereafter, appropriate evaluation measures should be used, from review of the design and early versions by experienced colleagues to try-out of the prototype version and more formal testing of the revised version of the materials later on. At the very least, evaluation training materials should themselves be subjected to the evaluation procedures they are teaching their users to employ.

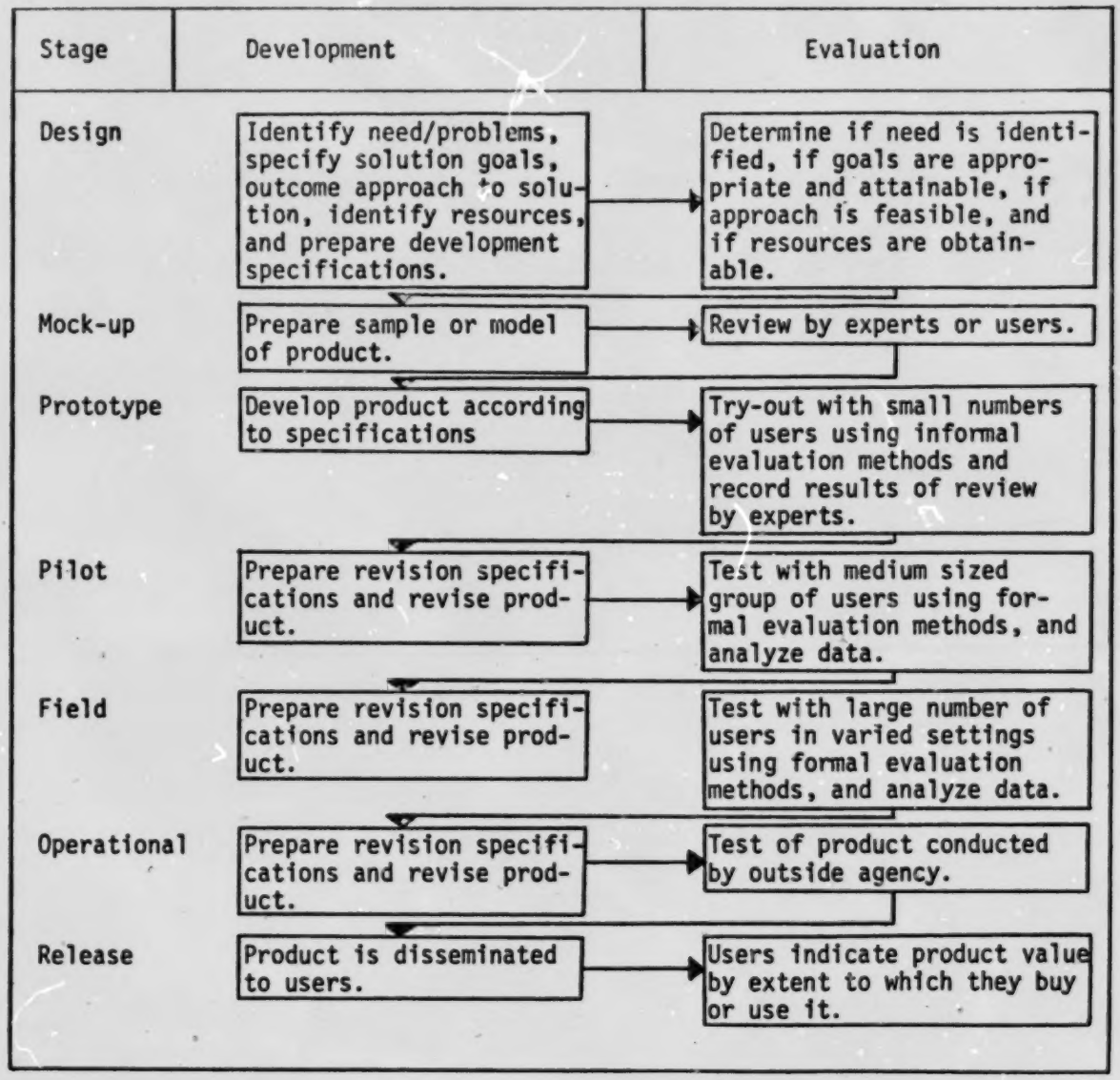
As we indicated earlier, the amount of documentation on the ways in which products had been developed and evaluated varied widely. Some products, such as those produced by the Center for the Study of Evaluation, (CSE) had been through numerous cycles of testing and revision with a variety of audiences. Agencies like CSE were prepared to continue work on their products until their effectiveness was proven. On the other hand, there were some products that had been put together much less formally, and in several cases the reviewer was told that the evidence for their effectiveness was the fact that the author had been teaching the content for many years.

There appears to be a relationship between the format chosen for training materials, the formality of the development/evaluation process used to produce them, and the category into which the developer falls. R&D laboratories and centers (whether public or private) are most likely to choose a self-instructional or workshop format which includes an instructor's manual, and to conduct a formal evaluation of the materials (as indicated in Figure 6). Independent authors are more likely to prepare procedural manuals or guides or write reference works, and to evaluate by means of review by other professionals.

In fairness to the independent developers, it should be noted that projects which are supported by a large staff and sufficient funding are much more likely to be able to mount formal development efforts than individuals with

FIGURE 7

STAGES IN PRODUCT DEVELOPMENT AND EVALUATION


Stage
Development
Evaluation
Design
Identify need/problems, specify solution goals, outcome approach to solution, identify resources, and prepare development specifications.
Determine if need is identified, if goals are appropriate and attainable, if approach is feasible, and if resources are obtainable.
Mock-up
Prepare sample or model of product.
Review by experts or users.
Prototype
Develop product according to specifications
Try-out with small numbers of users using informal evaluation methods and record results of review by experts.
Pilot
Prepare revision specifications and revise product.
Test with medium sized group of users using formal evaluation methods, and analyze data.
Field
Prepare revision specifications and revise product.
Test with large number of users in varied settings using formal evaluation methods, and analyze data.
Operational
Prepare revision specifications and revise product.
Test of product conducted by outside agency.
Release
Product is disseminated to users.
Users indicate product value by extent to which they buy or use it.

limited resources.

It is also possible that the approach to training development is affected by the developer's background and setting. R&D agencies are funded to produce materials which can be used by a variety of learners with predictable results even after the project is over and the staff dispersed. They must, therefore, develop materials which are as "user-proof" as possible, and self-instructional on either the individual or group level.

Centers or institutes with long-range funding, and state or district offices, have more continuity, and can afford to provide services to their clientele. They are therefore more likely to produce materials which require the presence of an experienced coordinator or advisor to be successfully used. The developer whose background is academic is more likely to assume the presence of an instructor who may use materials developed by others as training resources, but who will want to structure the learning him/herself.

In figure 6 we divided training formats into several categories. For purposes of analysis, it would be more accurate to say that the formats of the training materials reviewed in the Guide form a continuum on both the individual and group-use levels, ranging from those materials which can train the user in specific skills with no requirement for the presence of an instructor to those which are useful primarily as references. This continuum, with examples of works falling at different points on it, is displayed in Figure 8.

All of the materials reviewed can be used to train people in evaluation skills in some kind of instructional situation. One of the purposes of the review is to make clear to the prospective user just what conditions must exist for the product to be successfully used.

Results and conclusions

The most visible outcomes of the Analysis of Evaluation Training Materials project was the production of the two volumes of the Guide to Evaluation Training Materials, which make it possible for an educational professional in need of evaluation training to easily identify the product or products most likely to provide the kind of instruction he or she needs and can use. In addition, the collected reviews form a data base from which one can derive a profile of the state of the art in evaluation training materials development today.

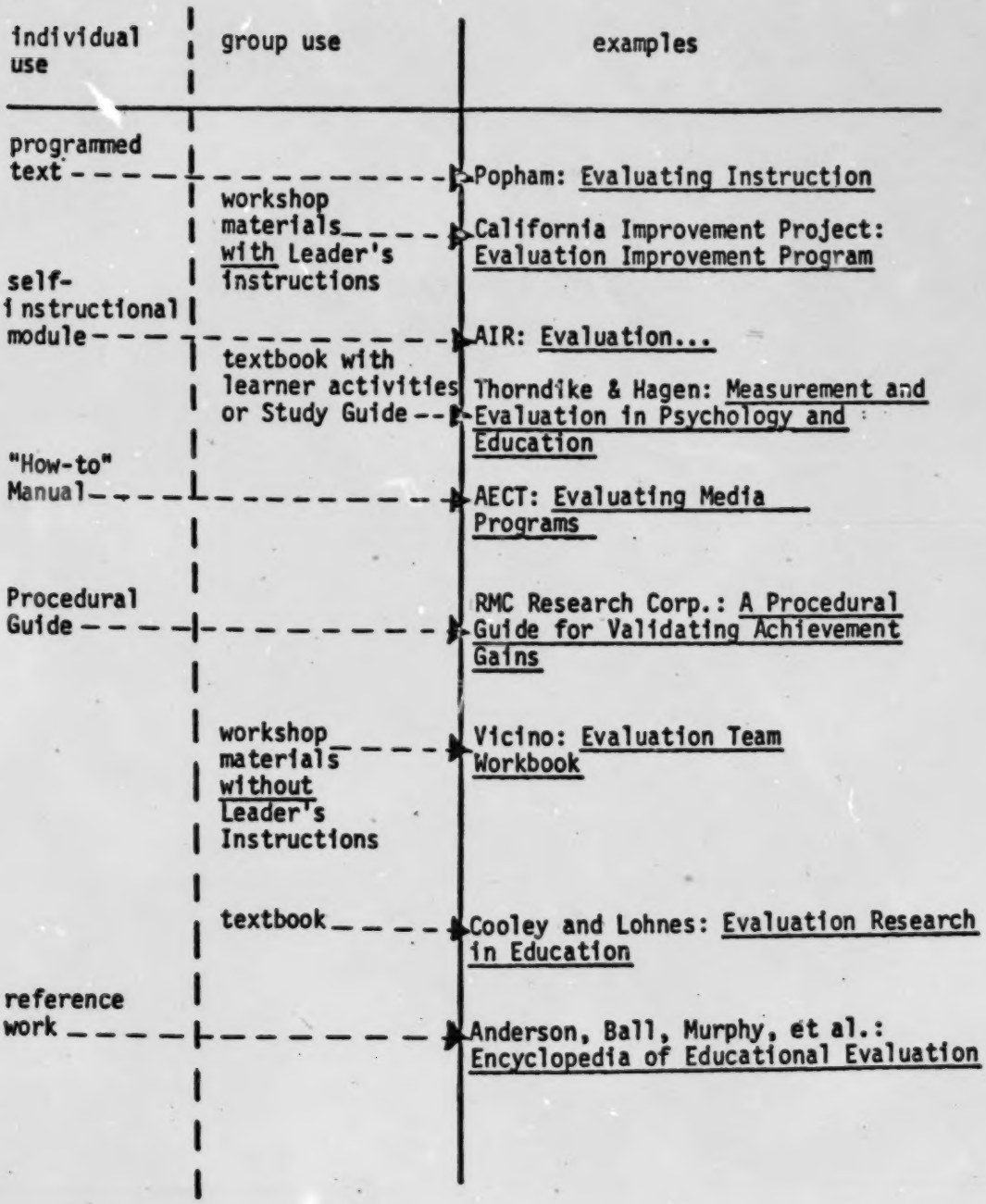
Although developers of evaluation training materials favor a comparatively limited number of evaluation models, their models for instructional development appear to be extremely varied. These differences may be a result of the different organizational settings and personal backgrounds of the developers, however in general the advances in the art of instructional technology and curriculum development which are being applied to the creation of materials for students, or for adults in business and industry, have not spread to the development of training for evaluators to the extent that might be hoped.

Another surprising finding was the fact that of the 83 single or multiple-part products reviewed only 58% had undergone one or more cycles of testing and revision. Another 11% of the developers reported that their materials had been revised on the basis of expert review or user comment, while 26% had either done no evaluation of their products or had no information on what procedures had been used and their results.

For real progress in the art of conduting evaluation training to take place research should be conducted into the training models available and the conditions under which and audiences for whom they are most effective. This kind of information would allow the reviewer to analyze products on the basis of dependable data rather than the reviewer's own criteria and assumptions, and

FIGURE 8

A CONTINUUM OF EVALUATION TRAINING MATERIALS


individual use
group use
examples
programmed text
Popham: Evaluating Instruction
workshop materials with Leader's instructions
California Improvement Project: Evaluation Improvement Program
self-instructional module
AIR: Evaluation...
textbook with learner activities or Study Guide
Thorndike & Hagen: Measurement and Evaluation in Psychology and Education
"How-to" Manual
AECT: Evaluating Media Programs
Procedural Guide
RMC Research Corp.: A Procedural Guide for Validating Achievement Gains
workshop materials without Leader's Instructions
Vicino: Evaluation Team Workbook
textbook
Cooley and Lohnes: Evaluation Research in Education
reference work
Anderson, Ball, Murphy, et al.: Encyclopedia of Educational Evaluation

it would provide funding agencies with a more reliable basis on which to evaluate proposals for training development.

It is our hope that evaluators and trainers of evaluators will consider these questions, and perhaps join with instructional technologists in developing information that will be of benefit to them both.

REFERENCES

Daniel Antonoplos, Bela H. Banathy, Laird Blackwell, Steven Mills and Diana P. Studebaker, A Consumer's Guide to Evaluation Training Materials, Volume I, Princeton, N.J.: Educational Testing Service, 1978.

Daniel Antonoplos, Bela H. Banathy, Diana P. Studebaker, A Guide to Evaluation Training Materials, Volume II, Seaside, CA: National Teaching Systems, 1978.

Bela H. Banathy, Laird Blackwell, Steven Mills, Diana P. Studebaker, A Final Report on the Analysis and Reporting of Evaluation Training Materials Developed by R&D Laboratories and Centers, San Francisco, CA: Far West Laboratory, 1976.

Bela H. Banathy and Diana P. Studebaker, A Final Report on the Analysis and Reporting of Evaluation Training Materials Developed by Agencies Other than R&D Laboratories and Centers, San Francisco, CA: Far West Laboratory, 1978.

APPENDIX A

List of Products Reviewed in Volumes I and II of the Guide to Evaluation Training Materials

LIST OF PRODUCTS IN VOLUME I

• Training Materials in this Guide

Center for Educational Policy Management (CEPM)

1 School Planning, Evaluation, and Communication System (SPECS)

2 A Systems Analysis of a School District (SPECS I)

3 Program Planning, Evaluation and Communication (SPECS III)

4 Community Based Broad Goal Definition (SPECS IV)

5 Assessing Achievement of the District's Broad Goals (SPECS V)

6 Strategies of Organizational Change System

7 Technology for Organizational Change Specialists

Center for the Study of Evaluation (CSE)

1 The Evaluation Technologies Program

2 CSE Evaluation Workshop I: An Orientation

3 CSE Evaluation Workshop II: Needs Assessment

4 CSE Evaluation Workshop III: Program Planning

5 CSE Evaluation Workshop IV: Implementation Evaluation

6 CSE Evaluation Workshop V: Progress Evaluation

7 CSE Evaluation Workshop VI: Outcome Evaluation

8 CSE Elementary School Evaluation Kit: Needs Assessment

9 CSE Needs Assessment Kit

10 CSE Program Planning Kit

11 CSE Program Evaluation Kit

Far West Laboratory for Educational Research and Development (FWL)

1 The Educational Management Program

2 Analyzing Problems (Unit 2)

3 Evaluation for Program Improvement (Unit 5)

4 Development, Dissemination, and Evaluation (DD&E) Training Resources

5 DD&E Series 1: Planning

6 DD&E Module 1.1: Problem Definition and Specification of Outcomes

7 DD&E Module 1.2: Consideration of Alternatives

8 DD&E Module 1.4: Introduction to Evaluation

9 DD&E Series 2: Information/Data Collection and Organization

10 DD&E Module 2.2: Data Management

11 DD&E Module 4.4: Review, Tryout, and Revision

12 DD&E Series 5: Evaluation

13 DD&E Module 5.2: Measurement and Testing for Developers and Evaluators

14 DD&E Module 5.3: Design of Evaluation Instruments

15 DD&E Module 5.4 Planning and Implementing Evaluation

16 DD&E Module 5.5: Evaluation Problems

Northwest Regional Educational Laboratory (NWREL)

1 Objective Analysis and Planned Change Series

2 Research Utilizing Problem Solving (RUPS)

3 Preparing Educational Training Consultants (PETC) series

4 PETC:3 - Organizational Development

Research for Better Schools, Inc. (RBS)

1 Inventory for Curriculum and Instructional Improvement

2 Handbook of Comprehensive Planning in Schools

3 Surveying Your Community

4 Pupil Perceived Needs Assessment Package

5 Evaluating a Curriculum Program

6 Curriculum and Instruction: Planning Improvement

Southwest Educational Development Laboratory (SEDL)

1 CALIPERS

2 A Developmental Process

Southwest Regional Laboratory (SWRL)

1 Instructional Product Research

2 Instructional Product Development

LIST OF PRODUCTS IN VOLUME II

Training Materials in this Guide

Author (listed alphabetically) and Title	Product #
Alabama State Department of Education: Program Evaluation Validation, A Manual for School Programs	56
Alameda County Schools: Needs Assessment Manual: Alameda County Needs Assessment Model (ACNAM)	45
American Educational Research Association (AERA): Training Tapes, Series B and C	1
American Institutes for Research (AIR): Developing Comprehensive Career Guidance Programs: Modules 3-12	25
AIR: Vocational Education Curriculum Specialist (VECS) Program: Modules 9, 13, 15	26
AIR: Evaluation...	2
Association for Educational Communication and Technology (AECT): Evaluating Media Programs: District and School, A Method and an Instrument	36
Becker, Wesley C., & Siegfried Englemann: Teaching 3: Evaluation of Instruction	37
Bond, Jack H.: Evaluation Guide for Developing Comprehensive and Coordinated Career Services in a Small College Setting	27
Bond, Jack H.: How to Evaluate the Instructional Effectiveness of Materials	38
Burbach, Harold J., and Larry E. Decker, (ed.): Planning and Assessment in Community Education	28
California Evaluation Improvement Project: The Evaluation Improvement Program (EIP)	3
Connecticut State Department of Education: A Guide to Project Evaluation	4
Cornell Institute for Occupational Education: Reality-Based Evaluation: Program Evaluation Portfolio	5
Dallas Independent School District: Instructional Units in Educational Planning/Management Concepts-- Planning, Evaluation, Renewal	6

Educational Systems Associates, Inc. (ESA) Needs Assessment Procedure Manual 46

ESA: Program Evaluation 7

Fink, Arlene: HOW TO: Evaluate Education Programs, A Monthly Guide to Methods and Ideas that Work 8

Fink, Arlene and Jacqueline Kosecoff: An Evaluation Primer and Practical Exercises 9

State of Florida: Evaluating Learning and Instruction EPOA B-2 Program Module VI-1 39

Fresno County Department of Education: The School and Community, Partners in Education 47

Gronlund, Norman E.: Measurement and Evaluation in Teaching 40

Grotelueschen, Arden D., Dennis D. Gooler, and Alan B. Knox: Evaluation in Adult Basic Education: How and Why 29

Grotelueschen, Arden D., et al.: An Evaluation Planner 30

Hoover, Kenneth H.: Secondary/Middle School Teaching, A Handbook for Beginning Teachers and Teacher Self-Renewal 41

Human Resources Research Organization (HumRRO): Surveying School Problems 48

INSGROUP, Inc.: Needs Assessment 49

INSGROUP, Inc.: Objectives for Instructional Programs 50

ILM Publishers: Instructional Learning Modules 40-45 10

University of Iowa College of Medicine: Evaluation in Cancer Education 31

Johnson, Harry W.: Cispus Triple E Plan (Environmental Education Evaluation) 32

Mager, Robert F.: Goal Analysis 51

Mager, Robert F.: Preparing Instructional Objectives 52

Mager, Robert F.and Peter Pipe: Analyzing Performance Problems 53

Manzo, Anthony V., et al.: A Closer Look 42

State of Montana: Information System for Decision-Making (ISDM) Guidelines for Operation 11

National Study of School Evaluation: Evaluative Criteria 12

State Education Department of New York: District Evaluator's Handbook of Selected Evaluation Procedures for Categorically Aided Programs Serving Disadvantaged Learners 33

State Education Department of New York: Program Evaluators' Handbooks 13

Popham, W. James: Criterion-Referenced Measurement 57

Popham, W. James: Educational Evaluation 14

Popham, W. James (ed.): Evaluation in Education: Current Applications 15

Popham, W. James: An Evaluation Guidebook 16

Popham, W. James, and Eva L. Baker: Evaluation Filmstrip Tape Series 17

Program Development Center of Northern California: Educational Goals and Objectives, Phases I and II 54

RMC Research Corp.: A Procedural Guide for Validating Achievement Gains 58

RMC: A Practical Guide to Measuring Project Impact on Student Achievement 59

Scriven, Michael: The School Evaluation Profile and A Procedure for Assessing the Performance of a Particular School 18

Texas Joint Urban Evaluation Council: Materials for Educational Training in Accountability (META) 19

Thorndike, Robert L., and Elizabeth P. Hagen: Measurement and Evaluation in Psychology and Education (4th Edition) 60

UCIDT: Evaluation 20

UCIDT: Needs Assessment 55

Vicino, Frank L.: Evaluation Team Workbook 61

Webster, William J.: The Evaluation of Instructional Materials 44

Wiersma, William, and Stephen G. Jurs: Evaluation of Instruction in Individually Guided Education 34

Williams, Martha K.: Educational Manager's Guide to Project Evaluation 21

Wood, George S., Jr. and David A. Santellanes: Evaluating a Community Education Program 35

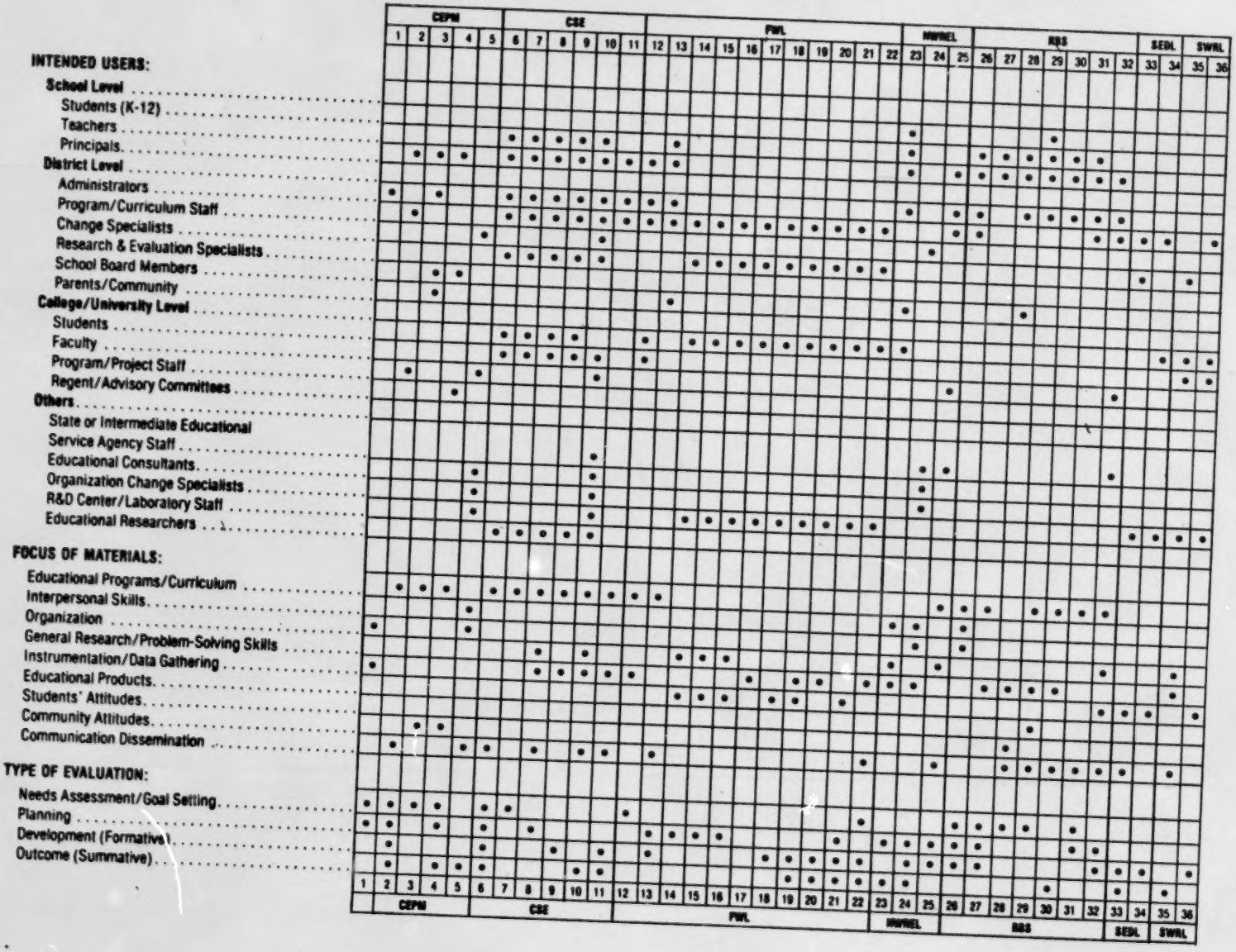
Worthen, Blaine R.: A Look at Educational Evaluation and Accountability (videotape) 22

Worthen, Blaine R., Michael D. Hock and Evelyn J. Brzezinski: Educational Evaluation Simulation: (Tanbar County and Copper Valley) 23

Yavorsky, Diane Kyker: Discrepancy Evaluation: A Practitioner's Guide 24

APPENDIX B

List of Products Reviewed
in
Volume I and II of the
Guide to Evaluation Training Materials


CEPM
CSE
FWL
NWREL
RBS
SEDL
SWRL
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36
INTENDED USERS:
School Level
Students (K-12)
Teachers
Principals
District Level
Administrators
Program/Curriculum Staff
Change Specialists
Research & Evaluation Specialists
School Board Members
Parents/Community
College/University Level
Students
Faculty
Program/Project Staff
Regent/Advisory Committees
Others
State or Intermediate Educational Service Agency Staff
Educational Consultants
Organization Change Specialists
R&D Center/Laboratory Staff
Educational Researchers
FOCUS OF MATERIALS:
Educational Programs/Curriculum
Interpersonal Skills
Organization
General Research/Problem-Solving Skills
Instrumentation/Data Gathering
Educational Products
Students' Attitudes
Community Attitudes
Communication Dissemination
TYPE OF EVALUATION:
Needs Assessment/Goal Setting
Planning
Development (Formative)
Outcome (Summative)

PRODUCT FOCUS

PRODUCT APPROPRIATENESS

	GENERAL TRAINING IN EVALUATION																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
INTENDED USERS																								
• Teachers		•	•		•					•		•					•			•		•	•	
• Administrators	•	•	•		•		•	•	•	•	•	•				•	•	•	•	•	•	•	•	
• Community/Parents																	•	•						
• Evaluators	•		•		•		•				•		•	•	•	•		•				•	•	
• Project/Program Managers	•		•	•			•		•	•			•			•			•	•	•			
• Trainers	•					•																		•
• Media or Curriculum Specialists																				•			•	
SETTING																								
• Elementary	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
• Secondary	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
• Adult Education	•								•	•					•				•	•	•	•		
• Special Programs	•			•	•		•		•	•	•				•		•		•	•	•			•
• Colleges/Universities	•				•									•	•							•		
• R&D Agencies	•			•											•									
• District or State Departments of Education	•	•	•	•			•	•		•	•		•		•			•	•			•		
MANNER OF USE																								
• Self-Instructional	•	•		•			•	•		•			•	•	•							•		
• Procedural Manual or Guide					•						•	•	•			•		○			•			
• Workshop Materials			•			•			•								•		•	•			•	•
• Course Materials										•				•								•		

PRODUCT FOCUS

PRODUCT APPROPRIATENESS

	EVALUATION OF SPECIFIC SUBJECT AREAS											EVALUATION OF CURRICULUM AND INSTRUCTION									NEEDS ASSESSMENT AND GOAL SETTING										VALIDATION, INSTRUMENTATION					
	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
INTENDED USERS																																					
• Teachers		•	•	•		•	•	•		•			•	•	•	•	•	•	•	•	•		•		•	•	•	•	•	•			•			•	•
• Administrators	•			•	•	•		•			•	•	•					•	•	•	•	•	•	•	•	•			•	•	•	•	•		•	•	
• Community/Parents											•												•		•					•							
• Evaluators				•					•					•							•		•									•	•	•	•	•	
• Project/Program Managers							•																			•	•	•	•						•		
• Trainers													•			•												•	•			•	•			•	•
• Media or Curriculum Specialists		•										•		•						•				•						•							
SETTING																																					
• Elementary								•					•	•	•		•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•				•
• Secondary	•	•						•					•	•	•		•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•				•
• Adult Education	•	•	•	•	•	•	•				•								•						•	•	•	•	•			•					
• Special Programs	•	•	•				•	•	•	•				•						•						•	•	•		•		•		•	•		
• Colleges/Universities		•	•										•			•			•								•	•	•			•	•		•		
• R&D Agencies																											•	•	•								
• District or State Departments of Education											•	•		•								•	•	•								•					•
MANNER OF USE																																					
• Self-Instructional		•			•		•						•		•		•		•						•		•	•	•				•				
• Procedural Manual or Guide			•	•		•		•	•		•	•								•	•	•	•									•		•	•		
• Workshop Materials	•	•								•							•	•								•				•	•						•
• Course Materials		•		•	•					•			•	•		•																	•			•	

APPENDIX C

Review Formats and Examples
from Volumes I and II
Guide to Evaluation Training Materials

SAMPLE PRODUCT SUMMARY

PRODUCT TITLE (INITIALS if any)
(name of larger program product is a part of, if any)

INTENDED USERS

The target audience, or people at whom the product is most specifically aimed, and for whom it will presumably work best.

TYPE OF EVALUATION ADDRESSED

The stage or type of evaluation and/or evaluation skills for which training is being provided in this product. The main stages or types of evaluation which may be listed are:

a) preformative - needs assessment, context assessment, program planning, and any other activities which take place before or early in the development of a product or program.

b) formative - evaluation which takes place during product or program development or which is intended to improve a program which is currently in operation;

c) summative - evaluation which takes place after a product or program has been completed and put into operation, whose purpose is to determine its worth and provide information for the decision on whether to continue or terminate it.

The main skill areas which may be listed are:

a) technical - instrument development, research design, data analysis;

b) interface - interpersonal relations, communication of evaluation results;

c) administrative - planning, coordinating, or monitoring the evaluation process.

APPROACH TO EVALUATION

The basic assumptions about the nature and purpose of evaluation upon which the developers of this product have based their work.

MAIN EMPHASIS

A brief summary of product content, which should indicate, among other things, what proportion of the materials are devoted to evaluation training.

GOALS AND OBJECTIVES

What the materials are expected to teach a user to do.

MAIN ACTIVITIES

What sorts of things the user will be doing to enable him to achieve the objectives--this heading would include specific learning tasks or the instructional approach used.

PROVISIONS FOR USE

A. Format: Possibilities include workshop, self-instructional, college course, on-the-job training, etc.

B. Personnel: This section indicates who, in addition to the learner must be present for learning to take place.

C. Product Components: The number, nature, and titles of the physical materials involved, including handbooks, instructor's guides, worksheets, and any other required materials.

D. Resources: Any other items, aspects of the setting, etc., which are necessary to use the materials. Possibilities here would include a meeting room of a certain size, copying facilities, etc.

E. Time Span: How long it takes the average user to complete the materials.

F. Conditions of Use: Conditions which should be present in order for the materials to be used effectively, particularly any commitment or attitudes which should be present in users or those responsible for the training.

ADAPTABILITY

A brief indication of any environments or user groups other than those for which the materials were originally intended with which they can be successfully used.

RELATED PRODUCTS

Other evaluation training materials which are similar or related to this one.

COST

How much it costs for the materials themselves or for implementation of a program of which they are a part.

AVAILABILITY

Where to write to obtain the materials or information about them.

HISTORY AND EVALUATION

A brief account of how the materials were tested or otherwise evaluated, with the results. This information may not be available for all products.

COMMENT A note by the developers of this Guide which includes any information about the product not covered under any other heading.

DD&E MODULE 2.2: DATA MANAGEMENT

INTENDED USERS

Developers, evaluators, and others in educational R&D, graduate students in education

TYPE OF EVALUATION ADDRESSED

Instrumentation/Data gathering, Communication

APPROACH TO EVALUATION

In this module, the purpose of evaluation is the determination of the value of proposed ideas for improving education.

MAIN EMPHASIS

This module is divided into three "episodes," the first introduces, describes, and indicates difficulties in identifying, coding, and organizing data. The second explains how to tally or compute frequencies, percentages, proportions, and ratios, and how to prepare simple, relative, and cumulative frequency distributions. The third episode covers a number of graphic and pictorial techniques for displaying data.

GOALS AND OBJECTIVES

This module is designed to teach the following:

1. commonly used methods for identifying, organizing, and presenting numerical data obtained in educational DD&E projects.

2. how to identify and code scores or responses on tests, questionnaires, interviews, and observation forms.

3. how to organize data for standard methods of statistical analysis.

4. several tallying and computing techniques, the preparation of different kinds of frequency distributions, and tabular, graphic, and pictorial data displays.

MAIN ACTIVITIES

Before beginning the module, the learner has the option of taking a pre-test to establish whether, or how much of the material he needs to learn. The module itself features an introduction with definitions of terms, instructional text, examples and problems, and exercises for which model responses are provided. These are followed by Study Suggestions and a reference list. A post-test can be used to measure learning.

PROVISIONS FOR USE

A. Format: self-instructional booklet

B. Personnel Needed: none, although it is desirable to have someone who is experienced in data management available for advice and discussion.

C. Resources Needed: Elementary Statistics 2nd ed., by Janet T. Spence, Benton J. Underwood, Carl P. Duncan, and John W. Cotton (New York: Appleton-Century-Crofts, 1968); and How to Lie with Statistics, by Darrell Huff (New York: W. W. Norton and Co., 1954)

D. Product Components: booklet, post-test

E. Time Needed: 12-16 hours

F. Conditions of Use: This training is most effective if it is integrated with application opportunities. These can be simulated or provided through limited internships, full internships, or planned by arranging for bona fide employment and on-the-job experience.

ADAPTABILITY

This module can be used in the context of a training program at a college, university, or R&D agency; a training program sponsored by a college or university and R&D agency or school district working in partnership; or by an individual in an R&D or school setting. It can be used for preservice or inservice training.

RELATED PRODUCTS

No other materials or skills are prerequisite for this module; however, it may be a useful reference in conjunction with modules 4.4., Tryout, Review, and Revision; and modules in the evaluation series.

COST

Single copy - $5.75

AVAILABILITY

To order, write:

Far West Laboratory for Educational Research and Development
1855 Folsom Street
San Francisco, CA 94103

HISTORY AND EVALUATION

After the first stage of development was complete, this module was tested with several individuals representative of the target groups. After being revised, it was again tested with 6-9 individuals who took the pre-test, completed all exercises, and took the post-test. The test results were analyzed and the module revised into field test form. It was tested at several

universities and R&D agencies by 29 learners. Their average score on the post-test was 79, and 83% of them scored better than 70 points out of 100. The average gain of those who took both pre- and post-test was 61 points.

COMMENT

This module does not concern itself with what to evaluate, or why, but rather trains the user in some specific techniques for dealing intelligently with the data an evaluation effort produces. It has great potential for usefulness in conjunction with other materials, if, for instance, an evaluation committee which has been using one of the large-scale programs (SPECS, Handbook of Comprehensive Planning in Schools, etc.) finds itself at the end of an evaluation with no experience in analyzing and communicating its data. Like many of the DD&E modules, 2.2 has the virtue of providing useful basic training in a single skill group which can be plugged in to a variety of situations. The procedures presented here would be equally useful with data from product or program evaluation.

Volume II

REVIEW FORMAT

PRODUCT TITLE

Author(s)
Institution or location

INTENDED USERS

The target audience, or people at whom the product is most specifically aimed, and for whom it will presumably work best.

TYPE OF EVALUATION ADDRESSED

The stage or type of evaluation and/or evaluation skills for which training is being provided in this product. The main stages or types of evaluation which may be listed are:

(a) preformative - needs assessment, context assessment, program planning, and any other activities which take place before or early in the development of a product or program.

(b) formative - evaluation which takes place during product or program development, or which is intended to improve a program which is currently in operation;

(c) summative - evaluation which takes place after a product or program has been completed and put into operation, the purpose being to determine the worth of the product or program, and to provide information for the decision on whether to continue or terminate it.

The main skill areas which may be listed are:

(a) technical - instrument development, research design, data analysis;

(b) interface - interpersonal relations, communication of evaluation results;

(c) administrative - planning, coordinating, or monitoring the evaluation process.

APPROACH TO EVALUATION

The basic assumptions about the nature and purpose of evaluation upon which the developers of this product have based their work.

FORMAT

Possibilities include workshop, self-instructional, college text, on-the-job training, etc.

PRODUCT COMPONENTS

The number, nature, and titles of the physical materials involved, including handbooks, instructor's guides, worksheets, and any other required materials.

CONTENT EMPHASIS

A brief summary of product content, which should indicate, among other things, what proportion of the materials are devoted to evaluation training.

PRODUCT PURPOSE OR GOALS

The reason the product was developed, or the goals or objectives it will enable the user to achieve.

CONTENT ORGANIZATION OR USER ACTIVITIES

What sorts of things the user will be doing to enable him or her to achieve the objectives (this heading would include specific learning tasks or the instructional approach used) or what kinds of information are included (glossary, etc.) and how they are arranged.

REQUIREMENTS

Personnel: This section indicates who, in addition to the learner, must be present for learning to take place.

Resources: Any other items, aspects of the setting, etc., which are necessary for use of the materials. Possibilities here would include a meeting room of a certain size, copying facilities, etc.

Length: How long it takes the average user to complete the materials, or the number of pages in the product.

Conditions of Use: Conditions which should be present in order for the materials to be used effectively, particularly any commitment or attitudes which should be present in users or those responsible for the training.

ADAPTABILITY

Other settings, subjects, or formats to which materials can be adapted.

RELATED PRODUCTS

Other evaluation training materials which are similar or related to this one.

COST

How much it costs for the materials themselves or for implementation of a program of which they are a part.

AVAILABILITY

Where to write to obtain the materials or information about them.

HISTORY AND EVALUATION

A brief account of how the materials were developed and tested or otherwise evaluated, with the results. This information may not be available for all products.

COMMENT

A note by the reviewer, giving reactions to the materials, and including information about the product not covered under any other heading, such as attractiveness, probable feasibility, etc.

MATERIALS FOR EDUCATIONAL TRAINING IN ACCOUNTABILITY (META MODULES)

Texas Joint Urban
Evaluation Council
Austin, Texas

INTENDED USERS

Administrators at all levels.

TYPE OF EVALUATION ADDRESSED

Preformative, formative and summative evaluation.

APPROACH TO EVALUATION

These materials are based on Stufflebeam's four-step CIPP model (context, input, process, and product evaluation). The purpose of evaluation activities is to assist decision-making.

FORMAT

Workshop materials.

PRODUCT COMPONENTS

Each module features a participant's notebook (partly reusable) facilitator's manual, and slide tape. The modules on process and product evaluation also include videotapes.

CONTENT EMPHASIS

The four evaluation-related modules in the program are:

Comparing where we are with where we would like to be: CONTEXT EVALUATION;
Deciding how to meet our needs: INPUT EVALUATION;
How effectively are we implementing our program? PROCESS EVALUATION;
Looking at how well we did: PRODUCT EVALUATION.

The same simulated case history of a school district whose reading program has problems is used to provide a basis for exercises at each successive stage in the evaluation process.

PRODUCT PURPOSE OR GOALS

CONTEXT EVALUATION

- define context evaluation and identify four major characteristics;
- recognize four steps in conducting a context evaluation;
- state two purposes of context evaluation;
- identify at least five types of information used in context evaluation.

19

INPUT EVALUATION:

- identify, examine, and compare the advantages and liabilities of alternative program strategies; and select the best one for the district;
- gather information needed to develop the best program plan;
- critique the program plan before implementing it according to the criteria provided, with spcial attention to consistency with the district's identified needs.

PROCESS EVALUATION:

- define process evaluation and identify four steps in it;
- identify at least two reasons for using a management team strategy in a process evaluation;
- specify two purposes for process evaluation;
- identify at least five criteria to be used in evaluation process reporting.

PRODUCT EVALUATION:

- understand the purposes of product evaluation;
- understand how to plan for a meaningful product evaluation;
- understand how to utilize produce evaluation for decision-making.

A general purpose for all the META modules is to instill positive attitudes towards context, input, process, and product evaluation in workshop participants.

CONTENT ORGANIZATION OR USER ACTIVITIES

Modules begin with a pre-test. After reading a general discussion of module content, participants are introduced (or re-introduced) to the simulation material. The module tasks are presented, and participants engage in large and small group activities to complete them. The modules conclude with a post-test.

REQUIREMENTS

Personnel: A facilitator.

Resources: Slide projector and cassette recorder with automatic tape advance, videotape projector.

Length: An average group of users can go through one module in 3 1/2 hours. Modules can be taken consecutively in two days or in four separate sessions.

Conditions of Use: The facilitator should have experience in public school evaluation.

ADAPTABILITY

Modules can be used in both urban and small-town settings.

RELATED PRODUCTS

META modules on applied research, communication, and communicating test results.

COST

For information, contact address below.

AVAILABILITY

Dr. Freda Holley
Office of Research and Evaluation - META Project
Austin Independent School District
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HISTORY AND EVALUATION

The META modules have been developed by the seven school districts in the Texas Joint Urban Evaluation Council under a Title IV C grant. Each module was tried out with four or more groups averaging ten persons each, in the district that developed it and elsewhere. Modules have been tried out with school staff in nearby small towns as well as in the urban districts which are members of the council. The project has been funded to extend testing for another year.

COMMENT

This project began with an extensive literature search, and has been conducted with careful attention to content validity and relevance ever since. It is one of the few staff training development efforts to be conducted by the school districts which will be using the results. Those interested in these materials should maintain contact with the developers, as they will continue to undergo revision and refinement.

APPENDIX D

"Evaluation Stages for a Major Laboratory Product"
by Paul Hood
from Educational Development, edited by
John K. Hemphill and Fred Rosenau, Eugene, Oregon:
Center for the Advanced Study of Educational
Administration, 1972, pp. 106-107

The outline below summarizes these seven evaluation stages.

EVALUATION STAGES FOR A MAJOR LABORATORY PRODUCT

I. *Stage*: Concept.

Purpose: To determine if there is an adequate analysis of the need and a potentially feasible solution.

Product: At the concept level, the product consists of a proposal which includes a rough plan containing at least the following items: (a) statement and justification of the need; (b) discussion of alternative approaches together with an evaluation of each; (c) statement of the recommended concepts of functions together with proposed configuration; and (d) initial plan roughly outlining the required activities including their sequence, dates for accomplishment and estimated cost.

Methods: Evaluation of the concept stage is based primarily on in-house judgment. Consultants may be employed if in-house capability is lacking.

II. *Stage:* Mock-up (Preliminary Product Development).

Purpose: To determine through the use of a tangible representation of the selected concepts whether the proposed model of the product appears to meet needs.

Product: The mock-up may be presented in the form of flow charts, outlines, scripts, storyboard rough or other physical representations.

Method: Evaluation of the mock-up is primarily on in-house judgment, but may profit from the use of consultants or even a representative sample of users. Mock-ups may be employed to compare alternative representations. They are especially useful when the proposed product is complex in its form or novel to those who may be required to judge it.

III. *Stage:* Prototype (Preliminary Field Test).

Purpose: To test the feasibility of the model in terms of (1) the *evaluation* by and (2) *performance* of a small representative group of users.

Product: All major types of elements of a complete model (but not necessarily all elements of each type) in a configuration and context permitting judgment of feasibility.

Method: Formal and informal evaluation by a small but representative sample of the various types of users with additional informal evaluation by Laboratory staff and possibly consultants. This evaluation may be conducted either in the Laboratory or in the field.

IV. *Stage:* Performance Test (Two sub-stages: a. Preliminary *and* b. Definitive).

Purpose: To determine if the model meets specifications and to discover how it may be improved.

Product: A complete model with all the necessary elements for evaluation (the model may be lacking complete set of implementation aids, but if these can be made available they should be tested at this time).

Method: Evaluation is mainly formal including a complete plan for testing and interpretation, plus a complete set of instruments and test instructions. Ideally, the sample should be a stratified, representative sample. The criteria and standards should be pre-specified.

NOTE: Stage IV-a constitutes a pilot test of just sufficient size to test all required forms and procedures. It should be scheduled sufficiently in advance of Stage IV-b to permit necessary revisions in any item of the product or test proper. Stage IV-b is a definitive test which should be of sufficient size and representativeness to permit generalization with respect to potential use of product and value to its intended users. It may be noted that certain specification tests could be accomplished by inspection and judgment by the developer or his consultants, but most require performance data, evaluations and judgments by the intended users. A conjoint set of minimal requirements should be pre-specified. These requirements may be based on the original concept with modification specified. These requirements may be based on the original concept with modification based on mock-up, prototype and preliminary evaluation data.

V. *Stage:* Operational Readiness.

Purpose: To determine the product's readiness and to make needed improvements prior to release.

Product: The complete operational product including all implementing aids.

Method: Operational readiness tests consist of both formal and informal elements. The formal instruments should focus on critical aspects of readiness. Informal procedures, including *ex post facto* analysis of failures, should be planned for. Generally, the sampling is accidental or purposive. The criteria are primarily judgmental and usually involve a variety of dimensions. A single composite index of acceptability may be entertained, but generally a conjoint set of minimal requirements should be pre-specified.

VI. *Stage:* Dissemination Plan.

Purpose: To evaluate the dissemination plan.

Product: The proposal for dissemination of the product.

Method: This is based primarily on in-house judgment, considered in comparison with specified, general criteria.

VII. *Stage:* Quality Control.

Purpose: To monitor the product (1) for improved use and (2) for improved design of new models.

Product: The final nationally distributed "package."

Method: The test here usually is of omnibus form and longitudinal with respect to time. Some systematic procedures are recommended but much of the evaluation will be of an informal or *ex post facto* variety.